

SEQUENCE LISTING

<110> C. Frank Bennett
Andrew T. Watt

<120> ANTISENSE MODULATION OF INTERFERON GAMMA RECEPTOR 2 EXPRESSION

<130> RTS-0235

<160> 89

<210> 1

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 1

tccgtcatcg ctcctcaggg

20

<210> 2

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 2

atgcattctg cccccaagga

20

<210> 3

<211> 2214

RTS-0235

$\langle 222 \rangle \quad (649) \dots (1662)$

ccg aag att cgc ctg tac aac gca gag cag gtc ctg agt tgg gag cca 801
Pro Lys Ile Arg Leu Tyr Asn Ala Glu Gln Val Leu Ser Trp Glu Pro
40 45 50

gtg	gcc	ctg	agc	aat	agc	acg	agg	cct	gtt	gtc	tac	cga	gtg	cag	ttt	849
Val	Ala	Leu	Ser	Asn	Ser	Thr	Arg	Pro	Val	Val	Tyr	Arg	Val	Gln	Phe	
			55					60					65			
aaa	tac	acc	gac	agt	aaa	tgg	ttc	acg	gcc	gac	atc	atg	tcc	ata	ggg	897
Lys	Tyr	Thr	Asp	Ser	Lys	Trp	Phe	Thr	Ala	Asp	Ile	Met	Ser	Ile	Gly	
		70					75					80				
gtg	aat	tgt	aca	cag	atc	aca	gca	aca	gag	tgt	gac	ttc	act	gcc	gcc	945
Val	Asn	Cys	Thr	Gln	Ile	Thr	Ala	Thr	Glu	Cys	Asp	Phe	Thr	Ala	Ala	
	85					90					95					
agt	ccc	tca	gca	ggc	ttc	cca	atg	gat	ttc	aat	gtc	act	cta	cgc	ctt	993
Ser	Pro	Ser	Ala	Gly	Phe	Pro	Met	Asp	Phe	Asn	Val	Thr	Leu	Arg	Leu	
100					105					110					115	
cga	gct	gag	ctg	gga	gca	ctc	cat	tct	gcc	tgg	gtg	aca	atg	cct	tgg	1041
Arg	Ala	Glu	Leu	Gly	Ala	Leu	His	Ser	Ala	Trp	Val	Thr	Met	Pro	Trp	
				120					125					130		
ttt	caa	cac	tat	cgg	aat	gtg	act	gtc	ggg	cct	cca	gaa	aac	att	gag	1089
Phe	Gln	His	Tyr	Arg	Asn	Val	Thr	Val	Gly	Pro	Pro	Glu	Asn	Ile	Glu	
			135					140					145			
gtg	acc	cca	gga	gaa	ggc	tcc	ctc	atc	atc	agg	ttc	tcc	tct	ccc	ttt	1137
Val	Thr	Pro	Gly	Glu	Gly	Ser	Leu	Ile	Ile	Arg	Phe	Ser	Ser	Pro	Phe	
		150					155					160				
gac	atc	gct	gat	acc	tcc	acg	gcc	ttt	ttt	tgt	tat	tat	gtc	cat	tac	1185
Asp	Ile	Ala	Asp	Thr	Ser	Thr	Ala	Phe	Phe	Cys	Tyr	Tyr	Val	His	Tyr	
	165					170					175					
tgg	gaa	aaa	gga	gga	atc	caa	cag	gtc	aaa	ggc	cct	ttc	aga	agc	aac	1233
Trp	Glu	Lys	Gly	Gly	Ile	Gln	Gln	Val	Lys	Gly	Pro	Phe	Arg	Ser	Asn	
180					185					190					195	
tcc	att	tca	ttg	gat	aac	tta	aaa	ccc	tcc	aga	gtg	tac	tgt	tta	caa	1281
Ser	Ile	Ser	Leu	Asp	Asn	Leu	Lys	Pro	Ser	Arg	Val	Tyr	Cys	Leu	Gln	
				200					205					210		
gtc	cag	gca	caa	ctg	ctt	tgg	aac	aaa	agt	aac	atc	ttt	aga	gtc	ggg	1329
Val	Gln	Ala	Gln	Leu	Leu	Trp	Asn	Lys	Ser	Asn	Ile	Phe	Arg	Val	Gly	
			215					220				225				

cat tta agc aac ata tct tgc tac gaa aca atg gca gat gcc tcc act 1377
His Leu Ser Asn Ile Ser Cys Tyr Glu Thr Met Ala Asp Ala Ser Thr
230 235 240

gag ctt cag caa gtc atc ctg atc tcc gtg gga aca ttt tcg ttg ctg 1425
Glu Leu Gln Gln Val Ile Leu Ile Ser Val Gly Thr Phe Ser Leu Leu
245 250 255

tcg gtg ctg gca gga gcc tgt ttc ttc ctg gtc ctg aaa tat aga ggc 1473
Ser Val Leu Ala Gly Ala Cys Phe Phe Leu Val Leu Lys Tyr Arg Gly
260 265 270 275

ctg att aaa tac tgg ttt cac act cca cca agc atc cca tta cag ata 1521
Leu Ile Lys Tyr Trp Phe His Thr Pro Pro Ser Ile Pro Leu Gln Ile
280 285 290

gaa gag tat tta aaa gac cca act cag ccc atc tta gag gcc ttg gac 1569
Glu Glu Tyr Leu Lys Asp Pro Thr Gln Pro Ile Leu Glu Ala Leu Asp
295 300 305

aag gac agc tca cca aag gat gac gtc tgg gac tct gtg tcc att atc 1617
Lys Asp Ser Ser Pro Lys Asp Asp Val Trp Asp Ser Val Ser Ile Ile
310 315 320

tcg ttt ccg gaa aag gag caa gaa gat gtt ctc caa acg ctt tga 1662
Ser Phe Pro Glu Lys Glu Gln Glu Asp Val Leu Gln Thr Leu
325 330 335

accaaagcat gggcctagcc cactggctcc ctggaagaga tcaagccatc ggagctgcta 1722

gaattctgtc tggactttcc agagaccagt attccctttt gctgcctcta aaaggcctgt 1782

ccctgcagac atgagagaca gcaggtctca tgggggtgac aagctttttt ttttttttct 1842

taaagaattt tcaaaatcaa attccagaat gattttacgg agatatccca ggaaaattaa 1902

qqcttctctt aaacactaaa aaggcatgta attgcttggt agcaaaatgg atatgacaca 1962

tctctgatac ttttttcatt attggttggg ctgagcagtc agaagacctg gtcgtcgtct 2022

tgactttggc aaatgagccg gagccccttg ggcaggtcac acaacctgtc ccagcgaggg 2082

acactgagtg gcccttcacg tacatccatg gtgtgctggc ttaaaatgta attaatcttg 2142

taaataact cctagtaatt taagattttg tttttaact ggaaataaaa gattgtatag 2202

tgcatgtttt tt 2214

<210> 4

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 4

cagcaggctt cccaatgg 18

<210> 5

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 5

ggaggcccga cagtcacat 19

<210> 6

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Probe

<400> 6

tcaatgtcac tctacgcctt cgagctga 28

RTS-0235

<210> 7
<211> 19
<212> DNA
<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 7
gaaggtgaag gtcggagtc

19

<210> 8
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 8
gaagatggtg atgggatttc

20

<210> 9
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> PCR Probe

<400> 9
caagcttccc gttctcagcc

20

<210> 10
<211> 339
<212> DNA
<213> Homo sapiens

RTS-0235

<220>

<400> 10

ttttagtcga aatgtttgct ttaatagccc ccaaagtaca tattaagctt tcaactctcc 60
cccgcccccc tccccctttt ttgagacgg agtcaccagg ctggagtga gtggggcgat 120
ctcggtcac tgcaacctcc gctccagtc aacccattt tgaaaagggt ttaagggga 180
aggagttaga aagggccag tgaaggagga ggtggggctc tgggggtggg gggaatggcc 240
tccgagcagg gggagggaga gacagaaact tccagcattt ctaaattggcg tggggtttgc 300
cctggagccg gcggcggtgc acgagtagga agtccttta 339

<210> 11

<211> 54000

<212> DNA

<213> Homo sapiens

<220>

<221> exon

<222> (514)...(1420)

<223> Exon 1

<221> intron

<222> (1421)...(12692)

<223> Intron 1

<221> exon

<222> (12693)...(12825)

<223> Exon 2

<221> intron

<222> (12826)...(19284)

<223> Intron 2

<221> exon

<222> (19285)...(19490)

<223> Exon 3

<221> intron

<222> (19491)...(24688)

<223> Intron 3

"seq" 444360

<221> exon
<222> (24689) ... (24837)
<223> Exon 4

<221> intron
<222> (24838) ... (29981)
<223> Intron 4

<221> exon
<222> (29982) ... (30141)
<223> Exon 5

<221> intron
<222> (30142) ... (30518)
<223> Intron 5

<221> exon
<222> (30519) ... (30676)
<223> Exon 6

<221> intron
<222> (30677) ... (34632)
<223> Intron 6

<221> exon
<222> (34633) ... (35318)
<223> Exon 7

<400> 11
ggctggtctc caactcctgg cctcatgtga tccgcccacc tcggcctcct aaagtgctga 60
gattacaggc gtgagccacc gcgcctggca tcagtgcata ctttttgaag tgattccaag 120
ttatcgcccc cttttttcgt gtaacatata aatacatctc tgtatctaga aatatccaat 180
gcataattca attgtctgcg aggtatttca tcacgtatctc tcacgagcgt ggccaatttc 240
aaaatagttc tacaaagagg aaatgcaaga atgtgggaag agcaaaagaa aagctctatg 300
ttgcaaaaacc cttttttgct aacgtgtcca gtgggctccc gggacgacct gtttttaaata 360
tcttggtctc cctgcaccgc gtccctcctt tgctgcgcta gctttatgac gcatcttgga 420
agaacagggc agatttaaaa ccctctccca acaggcgtca aacgacatgg tgcaggctcg 480
ggctggggag cgggcctgcg gctgcccagc tgctaaagga cttcctactc gtgcaccgcc 540
gccggctcca gggcaaacc caccgcattt agaaatgctg gaagtttctg tctctccctc 600
ccctgctcg gaggccattc cccccacccc cagagcccca cctcctcctt cactgggccc 660
tttctaactc ctccccctta aaaccctttt caaaatgggg ttgactggag gcggaggttg 720
cagtgagccg agatcgcccc actgcactcc agcctggtga ctccgtctca aaaaaaaggg 780
gaggggggag ggggagagtt gaaagcttaa tatgtacttt gggggctatt aaagcaaaca 840

Abstract

aactttaatt gtattctaca aaagttttgg tctatgtgat atgttgcaaa ataaaaaat 3540
tttaaaaagt gaggccaggg tcggtggctc acacctgtaa tcccagcact ttgggagggt 3600
gaggcgggcg gatcacctga ggtcaggagt tcaagaccag gctggtcaac aatgatgaaa 3660
ccccgtctct accaaaaata caaaaattag ggggcgtgat ggtacacacc tgtgtcccag 3720
ctactcagga ggctgaagcc gaagaatcac ttaaactcag gaggcagagg tgagtaagc 3780
tgagatcaca ccactgcact ccagcctggg cgacaagagc aagactctat ctcaaaaaa 3840
caaaaacaaa caaataaaaa aactggctcc attgatcctt tgaaaagtag tagcagctgg 3900
gcacgggtggc tcatgcctgt aatccatta ctttgggagg cagaggtag cagatcacct 3960
gaggtcagaa gttccagaga ccagtgtggc caacatgtta aaaaccctt ctttactaaa 4020
actacgaaaa ttaccggggc gtggtggttg gcgcctgtaa tcccagctac ctgggagggt 4080
gaggcaggag aatcacttga acctgggagg ggagggtgca gtgagccgaa atcatgcaac 4140
tgactccag cctgggtgac agagcaagac tctgtctcaa aaaaagaaaa aaaaagaaaa 4200
gaaaagtagt gtagtgcttt aaactaatct ctattttgca actatttgaa cattttcaca 4260
ttaaacagct taaaaacaaa cctaattgat atcttcaaaa gaaacactct tttagtcaaa 4320
acacaaaagtg aaaatattca caatgattat atggcaaatg ggtggtagaa aggttttcac 4380
actttcccat aacttaccgg tgtaattttg aaattgcttt tatggtcaga gaaaaaaaa 4440
agtgttgaa actttttttt ttttttttg agatagtatc tctctccatc gccagggtg 4500
cagtgcagtg gcatgatcac agctcactgc agtctcaacc tcttgggctc aagccatcca 4560
cccacctcag cctcctgagt agctgggact acacgtgcac gccatcatac ctggctaatt 4620
tttgatattt tttgtagaga tgaggtttca cctgttttcc caggctgggt ttgaactcct 4680
ggggtcaaga gatccaccgg cctcagcctc ccaaagtgtc aggattatag atgtgaacca 4740
cccagcctgg ctccggaaac agatttttta aaggagaca tagtatctat cccttagagt 4800
tctgtaagag tagaatatgt aaaatatggg acctgtggca atttgtagcc atgagctgtt 4860
aagtagtggc cgtttgcgct agatagaaaa atgtaaccaa cagcacaagt gcagtaaatc 4920
aactgaccag ttagttacct gagtgttgag gaattaaggc ttctatttgt aattgtagca 4980
ggtgctgctg actttttcag gggattggat atgtactgtg ccacagaatt ttttatcatt 5040
atttgcctgac ttgaacagcc agagcttctc atatgcttag agaccaccga gaaagacagt 5100
aagtccccag caacttaaaa accattgcat gtgaatgtcc actgggtaag ctctgagtg 5160
ttcataatct cagcaagtga aaatatcatg tagctggaat gcttttgcca cctttataaa 5220
cgatcatgat agtaacattt attggtcaga cgagatgcca agtgctttat atacattacc 5280
tctcttaatt ttctcagcca ttctttcgaa ctaggttata tctctagttt acttctgga 5340
aagtcaaac tttcttgata ggaagagcca aataatctag gtcaataact tgatgtccag 5400
ttgttggtgt tgtttttgag acggagtctc gccctgatgc ccagggtggga atgcagtggc 5460
gctatctcgg ctactgcaa cctctatctc ccagggtcaa gcgattctcc tgtctcagcc 5520
tcccagtag ctgggactat aggcacctgc caccatgctt tgctaatttt tatattttta 5580
gtagggacgg ggtttcacca cgttggctag gctggtctcg aactcctgac ctcaagtgat 5640
ccccaccgca ccccccccg ccaacccccg ccagcctcag cctcccaaag tgttgggatt 5700
acaggcatga gctaccatgc ctggcctagt atttcttgaa gagaacaatt tcttgggtat 5760
ggctgaggaa tcagaaaatg cttttttatt tctcatctgc aagggtgatg aggtgggatt 5820
aatgatgttc acctaatga ctttcatcat aatgtccccg cccccaatag aaagatccta 5880
aagggtcagt ccttaattat caagattaaa tgattaatgt taattatatt ttattttatt 5940
atctgtgtgt gataagtgtt aatcaaacta tgctgttaag acccaggata tctctctatt 6000
ctttttgttt gtttgtttga tatggagttt tgctcttgtt gccagctgg agtgagtggt 6060
catggtcttg actcactgca acctccacct cccgggttca agtgattctc ctgcctcagc 6120

ctcccaagta actgtgatta cagtatgcac caccgcacct ggctaatttt tgtattttta 6180
 gtagagacag ggtttcacca cgttggtcag gctgggtctcg aactcctgac cttaagtgat 6240
 ctgctgcct caacctccca aagtgtctggg attacaggca tgagccaccg caccagccc 6300
 ctctattcc taaatatgca taaagtctga aatgcctgga tctgggatag gtagatcaaa 6360
 ggtgttggga tgggtcagga aggcagagtt gttcattcac ctcttctactg gttgttaa 6420
 ggtcctagt tttggccctg agtggtataaa aatgattaag acaatgaatg tagagaatag 6480
 tctacttaga gacctgtgca gaatgtctgt attaccatgt gtactataat agatacacat 6540
 aactatgtg ccatgatttt tcaaaagtgc tagaatagaa atatttttaa atgttatagg 6600
 aactacttg ccaggaagag ttgaagaaag tccaatagag gaagaacaaa ctgagctggg 6660
 ttttgaagca tggagtttca gattaaagaa aagaagaaaa ggccaggtgt ggtggctcac 6720
 gcctgtaatc ccagcacttt gggaggccga ggcaggtgga tctactaggtc aggagttcga 6780
 gaccagcctg gccaaagatgg tgaaacgctg tctctactaa aaatacaaaa attagctggg 6840
 cacagtggcg ggtgcctgta atcccagcta ctcaggaggc tgaggcagga gaatcgcttg 6900
 aaccagga gtggaggtta cagtgagcct agatcgtgcc actacactct agcctgggtg 6960
 acagaacaag actgtctcaa aaaaaaaga ggcggggtc agtgggtcac acctgtaatc 7020
 ccagcactgt gggaggccaa ggcaggcaga tcaggagggtc aggagatcaa gaccatcctg 7080
 gctaataatg gtgaaacctc gtctctccta aaagcacaaa aaaatagcca ggcgtggtag 7140
 caggtgcctg taatcccagc tactcgggag gctgaggcag gagaattgct tgaacctggg 7200
 aggtggaggt tgcagtaagc cgagatcacg ccactgcgac actgcactcc agcctggggg 7260
 acagagttag actctgtctc aaaagaaaaa aagaaaaagc aatatgcaaa attatgtagg 7320
 tccaaaataa aataggatag agtttatggt atttttagcga gtgggtggtga ttggtctggg 7380
 ataagatctt gaaggatttt cagcttactc aagtctgaac tctacctcc atgccaggaa 7440
 tcggcaaaagt ttttctgtaa agaactagac agtatgcact cagatgggtta cagaagtttg 7500
 attaaatggc tgatttctga attaggtatg gcgcttgaga ctctgcctag ggagagtgtc 7560
 caggtcatgc ttatatgtga aaatgtgtcg ttattttttc ctcttgctct cacacatgtc 7620
 ccttggtttc ctaagttagg ttttgaatat gaaattttga cagttgagcc aaaatgccct 7680
 ctataagcac gtgtatttcc ttctttaaag aattccctct caggaattcc ctctctaattg 7740
 tattgtaaga tttgggggtc gaccattaac gcattagtcc agttcaataa gcttcatttt 7800
 tttttgttgg tagcagggtc cattttatgg gcgaacatac cagtaagttc cttgccttcg 7860
 gggaagttaa agtttattaa aagcagttac agatatatta cagatgtatt atacaggagg 7920
 ttctcaagag gcaagaaggt tcagcaagtt cattgtctta attacaataa tttttttttt 7980
 ttttttttga gacagagtct ctctctgtca cccaagctgg agtgagtggtg tgcaatctcg 8040
 gctcactgca gcctccacct cccaggttca agtaaatctt ctggctcagc ctcccaagta 8100
 gcttgaatta caggcaccca ccaccatgcc tggctaattt ttatattttt agtaaagatg 8160
 gggtttcacc atcttgcca ggttggtctt gaactcctga cctcatgatc caccacctt 8220
 ggccctccaa agtgctgaga ttacaggcgt gagccactgc ggccagccta caacaatttt 8280
 tttttttttg agacagagtc tcgctcttgt cgcccaagct ggagtgcagt ggcgtgatct 8340
 cagctcattg caacctccac tgccgggttc aatgattct tgtgcttcag cctcccaagt 8400
 agctggaaat gcaggtgtgc accactatgc ctggctaatt gttgtatttt tagtagagac 8460
 ggggtttcac catgttggcc aggctggttt caaactccca aactcaggtg atccgcccac 8520
 ctacagctcc ctaagtgtg ggattacagg cgtgagccac cacgcccac caattagaat 8580
 aactttttac atgttgtatt tttaaaattc ataactcata atctaaaatt tatgtctcagc 8640
 acagctaact ttggagacct accaagaatg gtgcaatgat tcagcagcta ctcatggttaa 8700
 gacaagagta tctgggtgta acctgtatga aacctgcac tcacaaccac tgctccttct 8760

cccagcctt ccagccctgg tgtttcccat cggggggccat gtggcctgga acacagaggc 8820
 tgggctgccc aaggacaggc cccctggcct acaaaaagga cagtcttatt acagatgtgc 8880
 aatccttggc acttccctgt ggcgtctgca gttctgagac tgattttctt ctataaatgt 8940
 gaaaagatag gggatgatag gaaaccgga tataaggcag aacaatgttg cttgggccat 9000
 ctcttacacc tcagtgaac ggaaaatgaa ggaaatggaa ggctggcatg ggaaccccg 9060
 ctcttacagt gatgcccttt tgctgttcca cgcgtcgtt ggggtggaag cccttccttg 9120
 tcccctcgcc acccaccgag gagcccttg gtgttctctt tctgaactga atgcttagac 9180
 tggggaacta gaggtgcccg gaaagggag tcgggaagaa gagactattc ctgttggttc 9240
 ctccccagag atgggagatg gtgaacaggc gtgtggaggg cggaataatg gtcccaaaag 9300
 atgtccacgc cctcatcctc agagtccgtg aacctgggaa tgtgctgcct gacgtacaaa 9360
 agggactccg cagatgtgag taagttaaga gccctgatgt ggggagattg tcttgcttgc 9420
 ttgggccaag tggccttata ccaccacagg gtcccaaaa gatggagcag aggcagaagg 9480
 ttcagtacca gggagacaag aaggatgcgg ccaaccttgc tggaggaagg tgccctgagc 9540
 caaagaatgg gagtggcctc tagaagctgg gaaaggcaag gaaatggatt ctccctggag 9600
 gctcgagaag gacccacagc ctgctgataa cttgacttta gtcagtgaga ctgactttaa 9660
 acttctgacc agcagaacta taagaaaata aatttagatg tgatttttta aaatttattt 9720
 atttttagag atggggggat ctgctatgt tggccaggct agagtgcaat gattattcac 9780
 aggcattgat atagcacatg cactacagcc tcgaactcct gggctccagt gatcctccg 9840
 cctcagcccc ttgagcagct gggactacag gtgcgcacca ccacgcccag ctaaatctgg 9900
 gttgtgtgga gtcactaggt tagtgataat gtgttacagt gataagaaga acctaataca 9960
 ggaaataaaa ggagttgtca gattctttga atgcccacc ctaagcagac actcacctg 10020
 ttcttgaaa gagccgggtc cagctgcgtt ttctcatggc ccaataacaa gaagcagaca 10080
 aactaggaag aaagagaatt tattgctgta acaggaaggc cggagataat ccgaccagac 10140
 caactcaaag tgtttgattt tctttgtgct tacatagggt tgggttatgt gcctatgtgt 10200
 ggtattgcac taagtctatg agtaactaat tttgtttcaa ctagaaagtc agaggccaaa 10260
 aatgtgcttt ctaagtctaa tcaagctgtg aggtcccgga taccgtcaag gcctgtctcc 10320
 taaattctat ttaatgagga ctgtggtacc agagcattta tttatttatt tatttttgag 10380
 acggagtgcc gctctgtcgc ccaggctgga ggcagtggt gcaatcttg cttgctgcaa 10440
 cctccgctc ccgggttcaa ggcattctcc tgctcagcc tcccaggctg ctgggactac 10500
 aggtgtgtgc caccatgcct ggctaatttt tctattttta gtagagacag ggtttcacca 10560
 tgttgccag gctggcctcg aactcctgac ctccaggat ccaccacctc agcgtcccaa 10620
 agtctggga tttcaggcat gagccactgt gccgggccag gagtttatt ctatctgtc 10680
 tcatttacag tttgggtccg agagctgcct tagactctcc aataaatcta tcaaacagc 10740
 tgctctgtt atcttgactt gctccagggt tggagaagac ctgtgtagga tctgtgttcc 10800
 atttctggct ttgatgtctg ggcgtcagtt tccctggggt taattattag cttaattgtg 10860
 aggcagcatt gtggaaattt ctctgcatag ttccgatgct attcagatct gtctgtgtg 10920
 ctgtcatgca ggcctctctg tgtgactgtg agggagcatt gacctgccac caccctctc 10980
 tggagcatc cagtcaccaa ctggctttgg gcattgctag gtcatagcag ccacagcaca 11040
 cctggtgggc ctgcctcttg ccacgcagct ttacctgtct gccttcggcc caggatgtca 11100
 tgaggcctgc tgtgtgtcag gagaagtgtt gttagctggg tgggtgaagg tcaccagag 11160
 ctcatagggt tggaggggag gggcatccta taactaaaca aatggccgca gacttgcaa 11220
 ttcatctttc agaagaagag ccagtggtca ggctgtcagc tgatctctt gaggttgagc 11280
 gcatttaccg aaaatgtgtg gcttgaattt cctgctttga attttggaa agcatgtttt 11340
 tcaaaccttt ctccacctt ctgggcattt cttattaatc tttttggtca aaagccttat 11400

cttgattatg ttttctttct aagacaaagg gctccctgtg aagtacctgc ttgggaaagg 11460
gaggagtgtt ggcagtttct tctaggtccc cgaaggctcc ctgtgaagta cctgcttggg 11520
gaaggaggag gttgtggttg tttcttccag gtcaccccaa agagagggat tctgatattg 11580
gtggtgtttc cgggggagta tattctttct ctgtttattg cccctaacc tttttttttt 11640
tttttttttt tttggagaca gagtctctct ctgtcgccca gactggagtg caatgggtgcg 11700
atctcagctc cctgcaacct ctgcctcctg ggttcaagcg attctcctgc ctcagcctcc 11760
tgagtagctg ggattacagg cgctcaccac cgcacctggc taacttttat atttttagta 11820
gagacagagt tttgccatgt tggccacact ggtctcaaac tctgacctc gagtgatctg 11880
ccttccttgg cctcccacag tgctgggatt ataggtgtga gccactgagc tcggggcctg 11940
ttgtcctcta actttaatgt gtgtgagaag cagctggaaa gcttgtttaa aatgcagatt 12000
tcctgggggc ctcaggacct gcactttaac cagcaccctt gtgattgcga tgctgggggt 12060
ccttgagaga cgacaactct gatggtgccc agaagtcggc gttccttgcc ctcccctgca 12120
gcttgggctt tgcgtacctg atttaggatg tttgtgtgtt tttgctgtg tagtgtgtgc 12180
acgtgtgcac gtatttgctg acattttacca gacacttctt tggactaaa tctgaaagct 12240
aacgctgtc acatgatcac caggttaatc ttcgccacag ccctgtgggt gtatcattat 12300
tgacccctta ttcctgaaaa agaaaactca agctcagaca ggtgaagtga cctgccccga 12360
gcctaataca gttactaatg gtagaactgg gaccccagtc cggccagact ccagggccca 12420
ggacctgttc gtaacaactg ggacctgcag gtggaaaggc tgccccaggc gcctcttttc 12480
tttttgtgct gcctgtacca gtagggccat cttttagacc aaaagtcggg ggtgtggggc 12540
catgcccagg gggacctggg aatgccattt ctgcactttg aaaaaactg agttgtatga 12600
atgacttaga taatggacat tgaaacattt ttgtaattat ttccctctct ctcctccctt 12660
cctccctctt ctttttctct gtccccctca agacctctt tcccagctgc ccgctctca 12720
gcacccgaag attcgctgtt acaacgcaga gcaggctctg agttgggagc cagtggccct 12780
gagcaatagc acgaggcctg ttgtctacca agtgcagttt aaatagtaag ccggtatttc 12840
tggtggatcc ttgctgggag ctgtgggggc atcgtgcgga accctggggc cacatactag 12900
tcctgcctc tgtgcagggt ttgttatcaa acccgtggga aacacatcgt tcttgagct 12960
tgtaaaatct ctgaggacag aggtttcaca gcctccact catctgaagg cttaaactac 13020
actggcagtc aggactccgc tgtctaacca cacgggttct tgctttggtg gaaagttcat 13080
tctttcgtg gtttcaggag aaagggtgtg aaaataggct tccaccatgg aagaacagga 13140
ggcagctttt agtcttcac ttcgggctta aaaatcggat tgatttaacc ttatagacca 13200
aatatggcct gatcagaaat ttgtttggtt aattacaatg aattctgagt ttctcaactg 13260
gttttccatt ttgcatatta tcctggctct ttcactctgc tcttgctct tcaagctttt 13320
gcagaattgg ccatcacttg atttgcaata taaatacata tagaaagagg gcaaagtcca 13380
catcctttgt tttttttgt ttacgttggt aagtaggtta attgaagagt aagggtgaagt 13440
tattggctaa gtcattttgt actatttgggt aaaccaaag taaagacatg atgatgtcca 13500
gtgcttgtga gatgggactg gttcatatgt gttcacctga tgctgtttgc agaatacaatt 13560
agcatagccc tttcaaagag gaattctacc agacatttga agtcatggaa atgtccatag 13620
tagttttcca atgtgtgtgt gtgtgtgcac gtgtgcatgt gtgtctgtt gttgttgtt 13680
ttttgaaaca gagtttccct ctatcgccca ggctggaggg caatggcatg atctcagctc 13740
actgcaactt ccacctcctg ggttcaagt attctcatgc ctctgagta gctgggacta 13800
caggcatgag ctaccatggc tggctaata gatatatttt agtagagatg gggttttgcc 13860
atgttgacca ggctggtctc aaattcctgg cccatcctc aagtgatttg cccgctggg 13920
cctcccaaag tgctgggatt gcaggcatga gccaccgtgc ccagccttca tagtagtttt 13980
atcctacaca gataattcaa ccccccata aaaaaagag agacaaaaac tataatcatg 14040

aagagataca tgggaagtgt tattcatatc catcagtagg aaagtgacca attttagcct 14100
gctaacttac gcttgaacac taaaccacag acagccaata gaaaggataa ttagatgtca 14160
tctggtagaa attgcaactc tgtaaacttt ggcatgtatt tgtatttttt atttcttatt 14220
tttgttactt aaaaaaattt tttattcact tttatactga aaagttgcaa gtggtatgta 14280
tttattgtca agaatagaaa ggggccgac atggtggctc acacctgtaa aagaatagaa 14340
aagtaggcca ggcatggtgg ctcacgcctg taatcccagc actttgggag gccaagacgg 14400
gcggatcacg cggtgaggag atcgagacca tcctggctaa cacgctgaaa ccctgtctct 14460
actaaaaata caaaaaatta gctgggtgta gtggcggcg cctgtagtcc cagctacttg 14520
ggaggctgag gcaggagaat ggcgtgaacc cgggaggcag agcttgcagt gaaccgagat 14580
cgtgccactg cactccaggc tgggcgacag agcgagactc catctcaaaa aaaaaaaaaa 14640
aagaatagaa aagtaatgtg gaaaaatgac aggcaattga tttgtagag gagtaggtt 14700
ccaggtaact tgtttttctt tttctttttt tttttttttt tttttttgag acaaagtctc 14760
cgtcaccag gctgaaatgc agtggcacga tcttggctca ctggacctcc gcctcccagg 14820
ttcaagcaat tcttatacct cagccttctg tgtagctggg attacaagtg tgcaccaccc 14880
caccgggttc agataacttc tttttttttt ttctgagaca aggtctcact ctgcccccca 14940
ggctggagt gctggcatg atcatggctc aatgcagcca caatttcctg gctcaagaga 15000
tcctcctact tcagcctccc aagtagctgg gactatgggc gcacactgct gtaccagct 15060
aatttttaat tttttgaaga gatggggtt tgccatgtt gccaggctgg cctcgaactc 15120
ctgggctcaa gtgatccacc cacctcaacc tcccaaagt ctgggattac agacatgagc 15180
catcacactg gcgtttctta tttgttttta aatgtccgtt gtaacagtat ttgcttaata 15240
gaaacagggt ctaaactgag gtttgagagt tatctctaaa tcacattgat ctgttcctcc 15300
agtagttata aattacgaac attaatgtac ctgtaattaa tggagcaatc caccagagca 15360
ggctacacaa tttgcaagac ccagtcaaaa atgaaaatgt gagacccttt atttaaaaag 15420
tattaagaat ttcaagatgg caaccgcaga gcatcaaatg aagtgccttt ctgagaacgg 15480
gcttgatgtg agcgcacagg tcacatgtca ggaagtggc cctaccctca gcattcagca 15540
aacattacac cctagagcta aacaagaagc ttgttgtgag agtcacggct gatgtattga 15600
cttaggcttg atgtgattt atgggctcct tggccttgaa caaggaagta cgtttactga 15660
ttttcagagg agatgcttct aaaaatggga taaaacgtta ttgcattaaa aaaaaaaacc 15720
tttgatagag tttcatttga taaactaacc tgtttcactt tgtcttcttt tcaaaaagca 15780
ttttatagat attttctcag ggataaagg tggttttatt ttttatttat ttatttattt 15840
attttgagac agagtctcgc tctgtcatcc aggctggagt gcagtggcgt gatctcagct 15900
gactgcaact ttcggctcat tgcaacctgc ggctcactgc agcctccgcc tcgtgggttc 15960
aagcgattct cctgcctcag actcctgagt agctgggatt acaggcaccc accactacgc 16020
ccggctgatt tttatatttt tagtagagac agcttttcac catgttggcc aggctggtct 16080
cgaactcctg acctcaggtg atccgccac ctagcctccc aaagtgctgg aattataggt 16140
gtaagccatc acgcccagcc tagaggttgg ttttagtaaa agaaacatag gttagggtag 16200
atgtgaatat tcctgttaga aaaagggtgaa atcggggatg atttcttttt ctttttcagt 16260
ttgtagattt gataatggaa gagggccttt gcatttggtt ttagatactt tgttttagat 16320
acaaacatgt gtttgggact ttttattagt tttgaggctt gtgagactta aatttccacc 16380
gtgtttctct acaataaagc attgctatga ttaaaaatga agatgccttt gttttttgac 16440
agagtatcaa gaccaaatt acatggagca cttgatggga gaatttcaag tctaaatcat 16500
gggtagcaga cagtggctgc aggctatttg gctcccagtg ttttaatttt tttttcttca 16560
atgtgtgccc aacattaaga aatctggact tttcacttag aaaaaataa taataataa 16620
caggaaaaaa aaccaatcct gatgtcagtt ttccttgaaa atgcagacag tcgggcagca 16680

aggcccccttc cagatcacgc ctcttgggtct actgccagcc cctctctcag acctgcccag 16740
 ccctgtcttc tcaaacattt gtttttcatt ttcttctgat tttaatagca atccatgttc 16800
 tttatagaaa atctggacaa tctagaaaag tagaagaaaa taaaataacc tgttggttcta 16860
 cactctaaga ataactacta ttctcatttt attttacttt ttattttatc ttattttattt 16920
 atttatttga gacagagtct tactctgttg cccaggctgg actgcagtgg cgtgatctca 16980
 gctcactgaa acctccgccg cctgggttca agtgattgtc ctgcctcagc cttccaagta 17040
 gctgggatta caggcgcccg ccaccatgcc tggctaattt ttttgtattt ttagtagaga 17100
 tgcagtttca ccatgttagc taggctgggt tcgaactcct cacctgaagt gatctgccc 17160
 cctcagcctc ccaaagtgtc gggattacag gtgtgagcca ctgcaccag ccattattct 17220
 catttttagac ttttttttct aaattcgttc tcttgtttga aaattgtgtg tgtgtgtgtg 17280
 tgtgtgtaaa ccaaaccaga ctggggtcac acttctgggg tctatttcct tttttatttt 17340
 aacttgatgt agttaaatgt gagcattttt tcatgtaatt atttctgtgt ggacattgta 17400
 tgtttcatta tgtgacatat cacatgtgtt gtatttaact tttccccagt catgggcgta 17460
 gacagttggc agcttgtgcc tgtcctaagt catgacctcg tacatgaatc atatctggtt 17520
 attttcttac acttctagaa gagaggttgc tgggtcaaag gggatggact tacttaatgt 17580
 ttttgtgagt gacctacaaa aggctggaca tagctcttga gtcccagga caggctgagc 17640
 cccggcagtg gcaggggttt gggggagcag gccctgcact gcatttgagg aagagccgtg 17700
 catgttgctc ttggaggagg aggagcgggg cggttagagg gtctttaggt atctgtctac 17760
 cttgaaaaag aaatcactca cctcttccag agcacgcccc tcacccccga cctgagagga 17820
 gaggtcgtg gtttgcatc cctctcccca ttagggctcg tcaccctggg gctgagtagt 17880
 aggtatctat ggcgggtgtc ttcatggaag ccctggccac gcattctgaa gtggctttca 17940
 tcttgtccct tgcaacttaa gcggaagatg catcttgagg agggctcggag gtacagttag 18000
 aagcatgtgt ggtacgtgaa agccgggtgt cgtggggata cagagcggtc tccagtctcg 18060
 tctctgtct cccatggcct tgctttctgg gccatagttg ctgttgtagg gggatactgt 18120
 ccgctgcccc tactcaggct cccagcagcc acctccttgg cttttctgaa gtctgtcacc 18180
 taaggcaaaag aggtcagagc tggggactag agtcccacgt gggagtgtgg cattgggact 18240
 ctgggaaagg cactgtcatt cacaaggatg tgtggccatg tatttggaag ggttttcata 18300
 tgggtgagac aaatcctctt tgaatgggca gctatgggtg gaaagaaact ccgcaccagc 18360
 aggaagcagg actggagttt gtattaacac agttccattc caaaaacata ggctacagag 18420
 actgagtttg aagtattaaa atcagttatg ggatggaatg ggagaaaata tttgcaaatc 18480
 atctatctga caagggactt gtatccagaa tagataacga actcttaca ttcaacaatt 18540
 agaagacaaa taacccaatt aaaaaccaca gctgggcaca agggatcaca cctgtaatcc 18600
 cagcactttg ggaggccaag gcaggaggat tacttgagtc taggagttca agaccagcct 18660
 gggcaacaag gagagacccc caactctaca aagaaattaa aaataaaaaat aacagtagca 18720
 gccaaacaca gtggctcagc cttgtaattt cagcactttg ggaggccgag gtgggcggat 18780
 cacatgagga caggagtttg agaccagcct gaccaacata gtaaaacccc gtttctacta 18840
 aaaatataaa aattaaccag gcatgatggt gcatgcctgt aatcccagca cattgggagg 18900
 ccaaggcagg tggatcactt gaggtcagga gtttgagacc agcctggcca acatgggtgac 18960
 accccatctc tactaaaaat acaaaaatta cctgggtgtg gtggctcaca cctgtagttc 19020
 cagctactcg ggaggctgag gcacaagaat cacttgaacc caggaggtgg aggttgctgt 19080
 gagccaagat tgcgctactg cactccagcc tgggtgacag agcaaaactc catctcaaaa 19140
 aaaaaaaaaa aaaaagcggg ggggaactgt atggtacata taaattgtat ctcaataaac 19200
 ctgcgttttg aacaaaagct ctggggaaac tattacacat gaaacagaga attctgtgaa 19260
 ttgaaatcct tttttccttc ccagcaccga cagtaaatgg ttcacggccg acatcatgtc 19320

19320 19260 19200 19140 19080 19020 18960 18900 18840 18780 18720 18660 18600 18540 18480 18420 18360 18300 18240 18180 18120 18060 18000 17940 17880 17820 17760 17700 17640 17580 17520 17460 17400 17340 17280 17220 17160 17100 17040 16980 16920 16860 16800 16740

cataggggtg aattgtacac agatcacagc aacagagtgt gacttcaactg ccgccagtcc 19380
 ctcagcaggc ttcccaatgg atttcaatgt cactctacgc cttcgagctg agctgggagc 19440
 actccattct gcctgggtga caatgccttg gtttcaacac tatcggaatg gtaagagaac 19500
 ttgagtatag aacttccttt atactttcca ggttttcttc acttgcggtg tcgactccac 19560
 acacctctgt cctgcctgtc accctaaatg accagcagac aaatgggtag gacagtcaaa 19620
 cccacactct gaccttgagg gctgatgcta agggagtgtg atttgctaaa ccaggggttg 19680
 gccaaactaca gcctgcaggc caaatcgggc ccaccacttg tttttgtaaa taaagtttta 19740
 ttggaacaca cagttacatc catcttttat tgtgtctatg actgctttca cactacaatg 19800
 gtagagtagt tgcaatagca gctggtgagc ctgcaaagtc taaatttact gtggctcttt 19860
 actgaaaaag tttgccaaac tcatgctaga agggatgcta gcatatctct ctgatcacc 19920
 ttacttattc tgggtgcaact tcttttgtgt tgcagaatag gcaccttgaa tgggtgcctgg 19980
 catgtagtag gtattcagta aatatttgtt gaatgactga gtgaacaaat atgtccccag 20040
 atattggaag gagacagaag aaccctcaga ttccagttcc tacatttgtt cctccagtaa 20100
 ttcatattgt acgtagtcag ccatgccaga tgtttcttcc gtgtctggtt tatgcacaca 20160
 cagggcatga aacttacatg gatcttgatt tagacaaact aatgtataag acaattgaaa 20220
 tgtgatcacc gtctagatat ttgatataata atgaacaatt ttattgttga cttattttca 20280
 gtgttataat ggtgttttgg ttatgatttt taaaggagga ggaggctctgg ttaagatgtt 20340
 aaagtttatg ttatgtgtat tttaccacaa taaaaaattg ggggaataaa aagagttcct 20400
 gctgggcgcg gtggctcagc cctataatcc cagcactttg ggaggccgag gcaggcagat 20460
 cacttgaggt caggagtctg agaccagcct ggccaacatg gtgaaacccc atctctacta 20520
 aaaacacaaa aattagctgg atgtggtggt gcatacctgt aatcccagct acttgggaag 20580
 ctgaggtagg agaatcgctt gaaccgggga ggcagaggtt gtggtgagct gagattgcac 20640
 cattgcactc cagcctgggc aacaagagtg aaactccatc tcaaaaaaaaa aaaaaaaaaa 20700
 aaaaaagca aaataatcca aagaacagga gggacaagga caaagcttcc aggcatagaa 20760
 gaaacaaaat tggccataag ttgacagttg attcagttgg gtaattagta catgagtgtt 20820
 tgttaatgat ctccctctc tttttttttt tttttttttt ttgagacgga gtctctctct 20880
 cttgcccagg ctggagtgca gtggcgcaat cttggctcac tgcaagctcc acctcccagg 20940
 ttcacgccat tctcctgcct cagcctcccg agtagctggg actacaggcg ccgccacca 21000
 caccgggcta attttttgta ttttttagtag agatgggggtt tcaccatgtt agccaggatg 21060
 gtcttgaact cctgaccttg tgatccgccc gcctcggcct cccaaagtgc tgggattaca 21120
 ggcgtgagcc accgcacca gcctatcttc tctctacttt ctatgtgttt gaaattttct 21180
 gtaataaaaa gttttttttt gttgttggtg tttttgaggt ggagtcttgc actgtcgccc 21240
 aggctggcgt gcagtgggtg agtctcggt cactgcaacc tctgcctcct gggttcaagt 21300
 gattctccct ccgggttca agtgagcctc ccaagtagct gggactacag gtgcacgcca 21360
 ctatgcccg taaattttt gtatttttag tagagacggg atttcaccat gttgtccagg 21420
 ctggcctcta actcctgacc tcgtgatccg cccatctcag cctcccaaag tgctaggatt 21480
 acaggcgtga gagccaccgt gcccgccaa taaaaagttt tttagagagg atcatgcctg 21540
 taatcttagc ccattgggag gctgaggtgg gaggatcgct tgagctcagg agttcaagat 21600
 gagcctgggg aatatagcaa gaccccatct ctattttttt ttttttttaa tcagtgggtt 21660
 gtgctaggta ctgtgaggga cagaaacaga gaagacaggg caatcctgcc agctcctcgt 21720
 ctgctgtgga caagccattt gtccttgggt gccaaaccac cctccatttg agctataaag 21780
 tgtcaataaa gtgggaatta ggagtatgca aacaagtaat gatggctggg cgagtggtg 21840
 caccctgca atcccagcac tttgggaagc tgaggcaggc agatcatctg tggtcaggag 21900
 ttcaagacca gtctggccaa catggtgaaa cccatctct actaaaaata caaaagttag 21960

004337 04504
 103210 222100

ccgggtatga tggcacacga ctgtaatccc agctacttgg aaggctgagg caggagaatc 22020
 tcttgaacct gggaggtgga ggttgcagtg ggccaagatg acaccattgc acatcagcct 22080
 ggggtgacaga gcgaggctct gtcattttaa aaaaaaaagg aatgatactt accgccactg 22140
 cccagggatc aagagaaggt aacagaagca ggatgtatcg tgacagtggg tccgggtgcca 22200
 gccagctgcc gcttccggcc ggagtcaagc acccatgttt ctgttagtta ctggctgggc 22260
 tgctgttctc tgccctcgtg cttgaaaagc ttgacacagt ggtggtctca tgtcacatct 22320
 gccactttca cctctgctgg tggcgtaga atcagtaatg gatatggagg tggtttacca 22380
 agcagaggag tgagatggtg gttggagggg gcaggcttta gcatcaccct cacctgggtt 22440
 catatcccaa ctctgccatt tattggctgt gttactgtgg gcaagtagtg tcacctctg 22500
 gcttccgttt cctcgtctga gaaatgggga taaccttatt tgtttttttg ttttgtttt 22560
 ttttttgaga cagtctcgct ctgtcgccca ggctggagtg cagtggagcg atctcagttc 22620
 actgcagcct ccgcctccag gtttaagtga ttctcgtgcc tcagcctccc cagtagctag 22680
 gattactggc atgggccacc acaccccagt taatttttgg tttgtttttg tgagatggag 22740
 tttcactctt gtcacccggg ctggagtga gtggcccgat ctcggtcac tgcaacctct 22800
 gcctctcagg ttcaagcgat tctcctgct cagcctctg agtagctggg attactggca 22860
 tgcaccacca tgccccacca tgcccagcta atttttgtat ttttagtaga aacggcattt 22920
 ctccatgttg gccagactgg tcttgaactc ctgacctcaa gtgatctgcc cacctcagcc 22980
 tcccaaagtg ctgggattac aggtatgagc caccatgccc atcccgtgat acccttattt 23040
 ggcagtgaca ctgatcgtga gaggtctcgt ggaaaggcca tttacctgga gactccacac 23100
 attgtcgtcc agtgttccct agagccagcc ttcctccagt gctgtgagag gaggcagatt 23160
 gttctcgct ctatagtagg tttactgggt tcatgtcaga ttccgggcca ggactctctt 23220
 cagaagggca ggtctgagcc ctgtgttttc agcctgtcag tggccagctg tggctggtgt 23280
 ccacactccc atgtgcta at ggagatgccc aaagaatgtg tccaaagcca gtccctgcag 23340
 gtgcttctgc aacgcacttc tgcacactct gctcacttag ctgggacaag ggaagctgga 23400
 gaacgtgtgt gctggtgtcc ctgggcaggc tgagtggag agcattttgt cactagcagt 23460
 caatccacaa acatcaactat ggctggtggt gggccaggcc tgacctact tctgccactg 23520
 ggagttgtct ggacttagca cctccaccag aacaaatgag ggggcacaac tacaaactca 23580
 gcagttcttt tgcacagaga gaagcttggc cagatcatac acctaaccct caccaacctg 23640
 gagtgcccag gggagagaat ccagccctgc tgttgtaac acacagtgc aggattgtct 23700
 ccttggtgaa aatgtgcaga cattggtctc ttagaacttc gaggaccaa actgtacttt 23760
 gatctgagtt tctctggtga attatacaat gtgcatgctt acttaataaa tgcttgataa 23820
 cccctcattg atagcacatc atgagtcaca gtcctagcct gacctgtgaa ttatatgaaa 23880
 agcctgaaca aatagactta catggcaaca cttctcagtt attgtgttta aatatagtat 23940
 gggcatggtg ctcacgcctg taatcccagc actttgggag gccaaaggcag gcggatcacc 24000
 tgaggtcagg agtttgaaac cagcctggcc aacatagtga aaccctgtct ctactaaaaa 24060
 taaaaaatt agcgggtat ggtggcgtgt gctgtaatc ccagctacat gagaggctga 24120
 ggcaggagaa tcgcttgaac ctggaaggcg gaggttgag tgagttgaga ttgcaccact 24180
 gactccagc ctgggtgata tgtgcgagat tccatctcaa aaatgaataa ataaataaat 24240
 aggccaggcg cgggtgctca cacctgtaat ctcagcactt tgggaggctg aggtgggcgg 24300
 atcacgaggt caggagtctg agaacagcct ggccaacatg atgataccct gtttcttcta 24360
 aaaatataaa aattagccag gcatggtggc acacgcctgt tgtaatccca gctacttgag 24420
 aggtgatgc aagagaattg cttgagcccc ggaggtggag gttgcagtga gccgagatcg 24480
 cacaactgca ctctagcctg ggagacagag caaaactgtc tcgaaaaaat aataataaat 24540
 aaagagatag ataaaaacgt gtgtgtatat atctacacc actatatata tatatatata 24600

tatatatata gcattatata atacattgta ttatatctat aatacatatg tgtatgtgtg 24660
tggttttctc tttgtaattc tttttcagtg actgtcgggc ctccagaaaa cattgaggtg 24720
accccaggag aaggctccct catcatcagg ttctcctctc cctttgacat cgctgatacc 24780
tccacggcct ttttttggtta ttatgtccat tactgggaaa aaggaggaat ccaacaggca 24840
agagcatctt tcttttttgt ttggattttc ttttctttgc agtttctggc ttagcaaaaag 24900
aaagaaacct ttaacatggg caagaacagg gtgtctccat gtccccgtgt ccccatagag 24960
gctgagccct gagcctgttt tcattgtcct cttcaagacc tgtttttcca ctcggtttgc 25020
tgagacctcc ctccgccagg ctgatctgaa gggccagcca tcctttgatg tcaactctgtg 25080
tcccttgtgt ggggttgaga ctttgccggg gccctgctta cgatgccttt gccacgctct 25140
gtagtttga ggaggtttta gtgggcctgg ttctccatga ggaatccaca actacagcct 25200
gcaaggctta actgtataaa tgtttgaaca gtttgtgaaa agggcacatg cgaaatcggg 25260
gggaaacaga gggagaaaga gctttccaga gagcagtacc agcagggtatg agaaggcgtg 25320
gcatacgtgg agaactgcag gtgcttagat tggtcagaaa tgcaatccac aaggggctgt 25380
ggcaggtgct cacgttgaca gaggtgcatg acatcagagc ggcttggta gcctcgggga 25440
gtataggaaa aagcatcatg gtcttgaaagc atctccagtg cctaaattat cctagctgca 25500
tttaaggagg ttctgttatac tatgggaact tcatgatttc ctaaattcaa cattatgatg 25560
gtttttgata ataagagctt acatttattg agagcttcct ttgtgtttgg ctctgggcca 25620
gaattttaga tacttcatct catttcatct tttttttttt tttttttttg agctggagtt 25680
tcgctcttga tgcccagcta gtttttgtat ttttagtaga gacaggggtt ttaccacgtt 25740
ggtcaggctg gtctcagact cctgacctca ggtgatctgc ccaccttggc cacccaaagt 25800
gctgggatta caggcatgag ccacctgccc cggcccattt catctttata ctaatccgtt 25860
tgacagagaga gaatccaagt cgtaaagtgg cttgcctcag gtcagcagcg aatcactggc 25920
agagcagagc agagcagaga tgccatagctt cagagccctg ctcttgacca ccactttttt 25980
ctgccacacg ctttgtatct gcacttctcc ttcatTTTTT tttttttttt aattattgtt 26040
ctttttttga gacagtctca ctgtcggcca ggctagagta ctgtgggtacc atcttggtc 26100
actgcaacct ctacctcccc ggctcaagca gtccaccac ttacagccacc cgagtagctg 26160
gaactacagg cctgtgccaa ccacacctgg ctaatatTTT taaatttttt tttatagaga 26220
tgggggtttg ccatgttgcc caggctgggtc tcgaactcct ggtctcaagc gatctgcca 26280
cctcagtctc caaaagtgtt gaggttacag gcatgagccc gttcccagcc tcctcttcat 26340
ttcattatgg ggaatatgaa actgggaaga gtgagactca ctgaaaaaca gacttagcat 26400
ctaggaaata gggaaaaatc atttctccat atcagagctc aagatctggg tcgattagaa 26460
tagagggagc ctggcagaat ccagaagaga gactctgcct cttccaagtc tgtcctctcc 26520
aactggatac ggtgccggaa atgcaagaga taggatgggc cctctggcca cgcttttctc 26580
caccctttgg ttgctttctt cactcgaggg caccgtgttg ccatgtctcc tccccaaggg 26640
cccggccata cttttgtttt tttaggatgg agtccatcca cttctctgca ctgagtcagc 26700
ccccagaggg cgagttgcca cttgtatcct agagctgggc agggctgccc agcactggag 26760
aactcagctc caggacctg gggccagcct tgttgagcag caagctctaa tgaagagcac 26820
acagaacagg cttccactgc ctgggacctg cttagcacca tgtcacttag cctctctggg 26880
ctgcagcttc ctctgtgata aaatgaaaca actgagctat aagctggagc ctgtgaagag 26940
gagcagccgt gagggccccc aagtcccttt cctccatttg accagagcat ctgtacttgg 27000
cttccatgat caaaagggtt aaggatgaaa atgactctga aagccaccaa tgtgatcttt 27060
gttccagctg tgagtctgtg tgttaggggtc cccaagacct accctagatc gctcaaagga 27120
ctcccaggac tcagcacaga gtcacactct gatttcgttt tgagacagaa tttcactctg 27180
tctcccaggg tagagtgcag tgccacaatc tcggctcacg ggttcaagag attttctgt 27240

ttggttgctg tgttcacagt gaatttgagg aaacatcaga aaagatgtag gcagcttggc 29940
 catgttcatt tacatgtgtg cttgtgatgt ttttaaaaca ggtcaaaggc cttttcagaa 30000
 gcaactccat ttcattggat aacttaaaac cctccagagt gtactgttta caagtccagg 30060
 cacaactgct ttggaacaaa agtaacatct ttagagtcgg gcatttaagc aacatatctt 30120
 gctacgaaac aatggcagat ggtaaaatat accttcttat gtcctttctg aactgggaaa 30180
 agaatactcc tccaatagtg aaatcgggga atgcttatga ggtcatgggt ggtgggagtg 30240
 gggagaccca gtgagaagag tgctgaactg caggaataat gagcttggtc tgagatttgc 30300
 agtagtgagg gctaccagac agctaccact tgctttatct cattacagga ttgactttag 30360
 ctattaatgt aagcatacca ggtgaggggtg gggggtagag ggacttgccc attttactag 30420
 gacaggaatg ctctttaagc agcatggatg gaacattaac tgatgtttgt gttgtgcgta 30480
 ggaagatcat tctgttcaact ttcgtgtcct ctttttagcc tccactgagc ttcagcaagt 30540
 catcctgatc tccgtgggaa cattttcgtt gctgtcgggt ctggcaggag cctgtttctt 30600
 cctggtcctg aaatatagag gcctgattaa atactgggtt cactactccac caagcatccc 30660
 attacagata gaagaggtag gtgtgcacac atctcttttt ttttttttga gacaggggtc 30720
 tgctctgttg ccagggcggg agtgtcatgg tacaatctct gctcactgca gcctccatct 30780
 ccaggttca agcgattctc ctgcctcagc ctctgagta gctgggatta caagtgtctca 30840
 ccaccatggc ctgctaattt ttgtattttt ggtagaaaca gggttttgct atgttgcca 30900
 gactgggtct aaactcctga cctcaagtga tccaccacc tcagcctccc aaagtgtctg 30960
 gattacaggc gggagccact gcgcccggcc acgcagacat cttaatgggt acacatcagg 31020
 gccccactgc ccctggcaac ccctaagagt gcagctgtgg gcaaagccgt ggacacagag 31080
 atttgggtta caaatggtag ggggttggtt gtacacccat gttcatgttg acacgattca 31140
 caacagccaa aagggtggaag cactccggtg tcgttgaagg attaatagat aaatctttaa 31200
 tagatggtct tccatacaa tggaaatca ttcagcctta gaaaggaagg ggattgtgac 31260
 acatcctacc acacacatgg accttgagga cattatgctg agtagagtag ggcagtcaca 31320
 aaaggatact gtctgcttcc acttaaatga ggtccccaga gtcatacaat ccataaagac 31380
 aggaagtaga atggtgggtg cgggtgggtg gggaggggag tgggaagtgc gtgttgaatg 31440
 gggccagagt ttcagttctg gggctgtaca gagttctgga gatggatggt ggtcatgatt 31500
 gcacaatgtg aatgtgcttg gcactaccga actgtacacc taaaagagtg tatgatggtg 31560
 cattttatgt tatgtgtatt ttaccacaat ttaatttttt ttttttaatg gcatgggggt 31620
 ggctaaaaag gtggcctggc ctggagattg gctgcagtag acccctctcc gaggcagcag 31680
 gtctcctctg ctgtctggag aatgctccag ggaagtggcc tggctggagg acgtgaaggc 31740
 ggtggagaca gtgatcagga gcttgagctt tggggccccc aggggtgctta ggagggccct 31800
 aaggcagagt caacaccag agctgtgagt gccaggcccc gtgtacccat tgcccagtgg 31860
 gtattgctaa tatttgaaag gacttgagaa agaacagtag cgtgggtctt gtggaaagtc 31920
 ttattttcct gcataacccc agccccctga ggctctgtga ggccattggg cttctgagg 31980
 acacggtcag gacatttttg ggatcagagg cgagctgaga gaagaacatt taaaagcat 32040
 ttgcagccgg gcgcagtgac ccacacctgt aatcccagga cttggggagg ccagggtggg 32100
 cagatcacct gaggtcagga gtctgagacc agcctggcca acatggtgaa accctgtctc 32160
 taccaaaaat acaaaaatta gccgggcgtg gtgggtgggc cctgtaatcc cagctacatg 32220
 agaggctgag gcaggagaat tgcttgaacc caggaggtgg aagttacagt aagccaatat 32280
 cgcaccatag cacttttagct tgggtggcag agcaagactc catctcaaaa aaataaaata 32340
 aataaaaagc atttgcttct ggaggcttca cattattctt gggtaaacct agagtaaagg 32400
 tggtggaagc agaatgttac tcagttacat gtgggatgaa cagaggttag ataaggtcca 32460
 agtctgcaga aacatagcag cactttcaga aagaacccta gtcacttggt cttcatctg 32520

ccatgatgta ttgtaggtac acaggcagta tacagattcc ctactagaac ctccctgggtt 32580
aatattgtca caaaatcaca gtcctaaca ggtctcagaa tcttacttgc agtaataatc 32640
tctctctctc ctggtagaac taccagctga gccccagtac atgaatatac tatgagtcac 32700
tcctctgaga catgaacaga aaacacaggc ctgtcagttc acttttctag gaaagcataa 32760
agaacatccg ccaaaggtct ctgagttaca tgggaacagt gaatcatgtt tcacttataa 32820
ttctgggggtt tcacaagggt acatgttttg gttttgttcc tctttcagtc agtcagctac 32880
aagcttattg tcttccagta tctttcagca tttccaagag ctagacacta gattccttgg 32940
aacttggtga atctatggct aagcctaaag cctgcgggag caaaagggaa attaatcgct 33000
gggaaacacc cctttatatg ttaaggccta aggcctcgc tcccagattc tctgcttgct 33060
gtgcgctggt gcaaggggag ggggtggagga gtgcctgaga ccaatgcttg tgaacttgcc 33120
ctctttttcc ccatcacagc tgaacaagag cccccagtc ctcttctact gaaaggttac 33180
aatttttagag acgtcttaag attaataacc cacaggccta cactgagggt tgcaaggag 33240
aacttgcttt tcttccaatc agaaaatcag aagaaaaaaa caaaacttgc ttttctgag 33300
ttttgccctt ttaaactctc agcatattaa catggctcagc cctgggatga gtattaaagt 33360
gattactgag atgaggggta aggagtattc aactattaga agttgttggc tgggtgaggt 33420
ggctcatgcc tgtaatccca gcactttgag aggcagaggt ggggtggatca tgaagtcagg 33480
agatcgagac catcctggcc aacagggtga aacctgtct ctactaaaaa tacaaaaatt 33540
accaggcat ggtggcatgc gcctgtagtc ccagctactt gggaggctga ggcaggagaa 33600
tcactgaac ccaggaggcg gaggtgcag tgagctgaga tccacgccac tgactccag 33660
cctggcaaca gagcaagact cgtctcaaa aaaaaaaaaa aaaaaaaaaa aattagccag 33720
ccgtggtggt gcacgcctgc aatcctagct acttggttgg gaagctgagg caggagaatt 33780
gcttgaaccc aggaggcgga agttgcagtg agccgagatc gcgccactgc actccagcct 33840
gggcgaaaaa gagactgact caacaacaat aaaaaattgt tgccgggtgc agtgggtcac 33900
acctgcaatc ccagcacttt gggaggccga ggcgggaggga tcacctgagg tcaggagttc 33960
gagacagcct gaccaacatg ggaaaccccg tctctactta aaatacaaaa ttagcagggt 34020
gtggtggtgc atgcctgtaa tcccagctac ttgggagggt gaggcagagg ttgcagttag 34080
atgagatcgt gtcattgcac tccagcctgg gcaacaacgt gaaactccgt ctcaaaaaa 34140
aaaaattggt tcattgttga ataaaaagaa aaataagtta tgtcattggt ggacagaatc 34200
aacttatatc tgaataaaat aactatacca attaaaacta aagtaggcca ggcgtagtgg 34260
ctcacgccta taatcccagc actttgggag gccaagggtg gtggatcatt tgcgatcagg 34320
agtttgagac cagcgtggcc aacatagtga aacctgtct ctactaaaaa tacaaaaatta 34380
gccaggcaag gtggtgggca cctgtagtcc cagctacttg gaggattgag gcaggagaa 34440
cgcttgaacc tgggaagcag aggttgcagt gagctgagat cacaccacta tactccagcc 34500
taggcaagag taagactcca tctcaaaaaa aaaataaaaa taaaaataaa ataaaaaaca 34560
aaactaaagt taaaaggtct ggtatactga actggtaaac taattacaat tttgctttcc 34620
aacctcctca agtatttaaa agacccaact cagcccatct tagaggcctt ggacaaggac 34680
agtcaccaa aggatgacgt ctgggactct gtgtccatta tctcgtttcc ggaaaaggag 34740
caagaagatg ttctccaaac gctttgaacc aaagcatggg cctagccac tggctccctg 34800
gaagagatca agccatcgga gctgctagag ttctgtctgg actttccaga gaccagtatt 34860
cccttttgct gcctctaaaa ggctgtccc tgcagacatg agagacagca ggtctcatgg 34920
gggtgacaag cttttttttt ttttcttaa gaattttcaa aatcaaattc cagaatgatt 34980
ttacggagat atcccaggaa aattaaggct tctcttaaac actaaaaagg catgtaattg 35040
cttgtagca aaatggatat gacacatctc tgatactttt ttcattattg gttgggctga 35100
gcagtcagaa gacctggctg tcgtcttgac tttggcaaat gagccggagc cccttgggca 35160

ggtcacacaa cctgtcccag cgagggacac cgagtggccc ttcattgtaca tccatgggtgt 35220
gctggcttaa aatgtaatta atcttgtaaa tatactccta gtaatttaag attttgtttt 35280
taaaactggaa ataaaagatt gtatagtgc tgttttttaa agtctatgtg aagtgttttc 35340
tttattgtag cctattttct gcagagtctc agctttctaa aattactcaa tctaaacttg 35400
ttttttctta aataacacct gctagagcta ctgaggcctc atgggaactc agcaaacact 35460
tcctatggat gtcacttgat cctccaaagg ttataaagaa ggccagggcc tagtgacgtg 35520
gcccacgcct ataatcccag cactttggga ggctgaggtg ggtggatcac ttgaggccag 35580
gagttctaga cccacctggg caacatgggtg aaacctgtc tctatgaaaa atgcaaaaat 35640
tatccaggca tgatgacatg cacctgtagt cccagctact tgagaggcta aagtgggagg 35700
atgcttttag ctgggaggcg gaggttacca tgagccgaaa tgatgccact gcactccagc 35760
gtgggaggca gagcgagacc ctatctcaaa aaaaaaaaaa aaaagagggc tgggcatggt 35820
ggctcatgcc tgtaatccca gcactttggg aggtcaagat gggaggatcg cttgaggcca 35880
ggagtttgag aacagcctgg gcaacatagt gagacctgtg tttcacaaaa aataaaaaat 35940
tagctagtcg tgggtggtgca caccgtagt cccagctact caggaggctg agaccagagg 36000
atcatttgag cctaggagtt aggagttcaa ggctgcagtg agcaatgatt acaccactac 36060
attccagcct tggcaacaga gcaagagacc ctgtctcaaa aatataaaag ttataagggg 36120
gatttgcaga aggcacatta gcacttcatt tatatgtgac aagtcacact gtgttgacca 36180
aggcagggat ttgtgggcaa taaagagaat taactgatta atcaatagta atgttatcta 36240
ctgagcacgc aagtcactctg attgtgtcag tactgtcggg ctctgttgtt caaaggatat 36300
gtatttaaaa tccatttata ggctgggcac ggtggctcac acctgtaatc ccagcacttt 36360
gggaggccga ggcaggcaga tcacctgagg tcaggagttc gagaccagcc tggccaacat 36420
ggtgaaagcc tgtctccact aaaagcaca aaattagctg agtgtgggtg caggcaccta 36480
taatcccagc tacatgggag gcagttgggg ccctgtactg ctggtaagaa agtggctttt 36540
ttttttctt ttgagacaga gtctcactct gtcgcccagg ctggagcgca gtggcgcat 36600
ctcagctcgc tgcaacctcc acctcccagg ttcaagcaat tctcctgct cagcctcccg 36660
aatagctggg attacaggcg tgcaccacta tgcctggcta atttttgtat ttttagtaga 36720
gatggggttt caccatgttg gccaggctgg tctcgaactc ctgacctcat gatccacca 36780
ccttgggtct ccaaaggggt gagatcacag gcgtgagcca ccgtgtccgg caaaagtggc 36840
taactctctt aagtgttgtg taccatgtct tctgcagtgg caagagttag aaaaacaagg 36900
cccactccca ccccatgcac acaagtctcc ctgtgaagca tctgttgtat gcattaggtg 36960
caccttaagt agacaagttt ggaggaagaa gttgtagata ggagttgtaa agacttacct 37020
tagaccgttc aggaaatcgg agacagaaga gcttcttctg ttgggcagca ggatgggtggc 37080
cagcgaggag tggaggatac atctatagca ggagaacagg aaagagtttc agcccagcag 37140
gacagagggc aaatcaactc tgttagggta agtgcactct tgccacccca tttatttatt 37200
tagagacaca gtctcaccct gttgcccagg ctggagcgca gtggcacaat ctcaattcac 37260
tgcaacctct gccttcggg ttcaagcgat ttttgtgct cagcctccag agtagctggg 37320
attacagatg tgcgccacca caccagcta atttttgtat ttttagtaga gatggggttt 37380
cactatgttg gtcaggctgg tctcaaacct ctgacctcag gtgatccgct cacctcagcc 37440
tccaaagtg ctgggattac aggtgtgagc cactgtgcc agccttaaat agtattttct 37500
gaaatgaaat gcctcattct ccttagtaaa ataaatgact aattgatggg attagtattt 37560
acactgtcaa ggccaggcgc agtggctcac acctgtaatc cgagcacttt gagaccctga 37620
ggtgggtgga tcatgaggtc aggagtttga gacaagcctg gtcaacatgg cgaaaacctg 37680
tttctattaa aaatacaaaa attagctggg cgtgggtggc cacacctgta atcccagcta 37740
cttgggaagc tgaggcagga gaatcacttg agcccgagaa gcggaggttg cagtgcagctg 37800

acatggcacc	tctgcactcc	agcctgggca	acagagcaag	actctgtctc	aagaaaaata	37860
aagtcaagct	aagtacattg	tcaaaatddd	tgagttggaa	gcactcttat	aaataatccg	37920
ttgacagggc	ataatccata	acctacttgc	caaatcagcc	cattccctgt	ttttgtaaaa	37980
cccgtgtgct	aagaatagct	tttacatctt	ggaatagtta	aagtcaaaag	aagaatattt	38040
catcacacat	gaaaattcta	tgatattcaa	atttcactgt	tcataaatat	ttattagaac	38100
ccagaaggta	agctgcgtgt	agtggttcac	acctgtaatc	ccagcacttt	gggaggctga	38160
ggtgggcgga	tcatttgagg	ccaggagttd	gagaccagcc	tgaccaacat	ggtgaaacac	38220
cgtctctact	aaaaatacaa	aaattagctg	ggcatggtgg	tgcatgcctg	taatcccagc	38280
tactcaggag	gctgagcgaa	gggaattgct	tgaacctggg	atgcagaggt	tgcagtgagc	38340
agagatcggt	ccactgcatg	cctggtgaca	gagcgagact	ctgtctcaaa	aataataata	38400
aaataggccg	ggtgcggggg	ctcacgcttg	taatcccaga	actttgggag	gctgaggcag	38460
gagggatcat	gaggtcagga	gtttgagacc	agcctgacca	acatggtgaa	accccgtdcc	38520
tactaaaaat	acaaagatta	gctgggcgtg	gtgatgtgtg	cctgtaatcc	cagctactca	38580
ggaggctgag	gcaggagaat	cacttgaacc	tgggaggcag	aggttgcagt	gagccaagat	38640
tgccacctg	cactccacct	gggcgacaga	gcaagactct	gtctcaaaaa	ataataataa	38700
aataaaataa	cgtctctgtc	catagtgttt	aaatcacata	aaatggactt	ctggcagggc	38760
acggcggctc	acacctgtaa	tdccagcatt	ttgggaggct	caggtgagcg	gatcgcttga	38820
ggtcaggagt	tcaagatcag	tctggccaac	aaggtgacac	cctgtctcta	ctaaaaatac	38880
aaaaatcagc	ccagcgcagt	ggcaggtgcc	tgtaatcaca	gctattcagg	aggctgaggc	38940
aggagaatcg	gttgaacca	caaggtggaa	gttgcagtga	gccagatga	caccactgca	39000
cctcaacctg	ggcaacagag	caagaatctg	tctcaaaaaa	aaaaaggact	tcttgggtaca	39060
taacatttaa	agaagcctgc	atagtcacta	tggccactat	gtctttgaag	tgccacaaca	39120
gagagaggct	ctctgaaagg	aaatgatact	gatttgggaa	taggttatta	caaggggaac	39180
acgtgtgcc	gagtaaacta	tgtacatatt	taggaagggt	aaggaaaaca	aaggttctta	39240
aaggaaaaaa	tgaggattag	atcactgttt	taagataatt	atccttggct	ataaggatca	39300
atagcaaggg	ggatgccatt	ccaaggttag	acaggcagtt	gttgggcaga	tgtctctcata	39360
gaagtgtttg	ttgtgtaagg	cggtgaaggg	ctttgtgcaa	ggttgagatt	tttgcagtct	39420
tttgtgatca	tttttattta	tttattttatt	tagagacaga	gtcttgtctt	gtcacccaag	39480
ctggagggga	gtgatgcaat	cacagctcac	tgcaacgtct	gcctcctgga	ttcaagaaat	39540
tctcctgtct	cagcctcctt	agtagctggg	actacaggca	tccgccacca	tgcttggtcta	39600
attdttttgta	tttttagtag	agatgggatt	ttgccatgtt	gcccgagctg	gtcttgaact	39660
cctgacctca	agtgatccac	ctgcctcaac	cttctaaaaat	gctgggatta	caggcatgag	39720
ccaccacgcc	cggccttgtg	atcatttttg	ttatcaagca	tttttgcatg	agaatccttc	39780
atggccttcc	ccagctctat	ttgtcagggt	tttttatttg	tttgcttgtt	tgtttgaaagc	39840
acaagtgact	ccattttgat	tctgacaact	tccacactat	gcagtcacat	ctctgaggcg	39900
cccagagccc	ttcaaaatat	atttgctgtt	tgccaaatat	tctctatttg	agatgagaac	39960
atccccagct	gtccttctgt	ttgatgagaa	gtgagactcc	accccgagcag	cttccggaga	40020
tgcagtcatg	cctccccacc	cttcaactgcc	actcccagcc	tcccttgaga	ctcaaggact	40080
gtcccacggg	aatgaagtga	aagtgacgtc	tttctccttg	tttccagtct	gtggtgaggg	40140
aaaacagctg	gctacgcttg	agagggtatg	gaaactggtc	agagtggtta	cttgggacct	40200
ggggcctcag	agccacccgt	tgctaaggag	aggactctgg	tcagggcaac	ttgccaatgc	40260
tctaggaatg	acacctagac	attcctaaaa	aatgatagcc	taaaaattca	tccatttgta	40320
gaaatacagg	cagcactagc	ttctctgggc	ccctcagtta	tcaaaaaaag	aggagggagg	40380
cagaccctca	gggttacttt	acatccatat	acctagctac	aacataaaca	tcaaatgata	40440

[illegible]

tactcaaaga	aattttaa	atcctatctg	ccacagctga	aagaattgaa	gaggcattta	43140
ctgctatcca	aaaccctaag	taaaattact	taagctgtga	taaaagtgtc	acaaaaaaat	43200
gctctggcag	gctctaaact	tggaaagtctt	gtttttctta	gcatggcatg	ccaccttgtg	43260
gcaaaaagct	aaaaagtc	cagatgagaa	aggaaacatc	ccttcaaaag	tcatcataag	43320
aaatgccggg	cacggcgcct	gtaattccct	gcactttggg	aggccaaggc	tggcggatcg	43380
cttgaggtta	gaagttcgag	accagcctgg	ccaacatggc	aaaaccccat	ctctactaaa	43440
aatacaaaaa	caattagcca	ggcgtgggtg	catgtgccta	caatcccagt	tacttgggag	43500
gccaaggcac	gagaatggct	tgaacccagg	aggctgaggc	tgcagtgagc	cactgcactc	43560
cagcctggat	gacagagtga	gactctgtct	caaaaaaaaa	aggaaaaaaaa	aagcctactt	43620
gtgtgaatca	cttattat	ccaggaactt	tgttaagcat	ttcctcagat	taattctcaa	43680
acatacttac	agacagggaa	acagtcttgc	agtcaaatag	ctaataaatg	gcagtgccag	43740
aataagggaa	taagggagaa	gtaaaccaac	ctaaacttaa	atccataggc	ctccgagaat	43800
cccagcgc	aaaccacaac	tgtctagtaa	caacgcaatt	ggaagaattc	ttcctactgt	43860
gccctcctgc	caccattttt	attccccata	atcaggctgg	ccacaggctt	ttcccaaagc	43920
cagccatgcc	cacacctaaa	cattttcctc	tccttttg	aattccctgt	gttctatcta	43980
ttctaaagcc	accatagcag	cactttcccc	aaattacatt	tttcttttat	tttttttatt	44040
ttttattttt	tatttttttt	tgagacagtc	ttgctctg	gcccacactg	gagtacagtg	44100
gcttgatctg	agctcactgc	agcctctgcc	tcctgggctc	aagcaattct	cctgcctcag	44160
catcccaagt	agctgggatt	acaggcatgt	accaccatac	ttggctaatt	ttttgtattt	44220
ttagtagaga	tgggtttcac	tatgttggcc	aggctgatct	cgaactcctg	acctcaagta	44280
atctgcccgc	ctcggactcc	caaagtactg	ggagtacagg	cgagagccgc	tgtgcctggc	44340
cccaaattac	atttttcaac	atgttccagg	agataaattt	ccaagtctca	gtaatagaaa	44400
acaccatata	attgacaccc	tcctcctaaa	gacatacaat	acacacacac	acacacacac	44460
aaaaaaaaaa	aaaaaaaaaa	aaacctctaa	gaaagaaaag	aactttacag	aatttttaaaa	44520
agggtgtttg	gagcctagt	tgggtgattg	cacctctagt	cccagctact	caggaggctg	44580
aggcaggagg	atcacttgag	ctcaggaatt	caagaccagc	ctgggcaaca	tagcaagacc	44640
cctctctaaa	aaagactaag	caagaaggcg	gggcgcagt	ctcacgcctg	taatcccaac	44700
actttggggag	gccgaggcgg	gtggatcacc	tggggtcagg	aatttgagac	cagcttggcc	44760
aatatgggtga	aaccatgtct	ctactaaaaa	tacaaaaatt	agccgggtag	gatggtaccc	44820
acctgtaacc	ccagctactc	gggaggctga	ggcacgagaa	ccatttgaac	ctgggagaca	44880
gaggttgag	tgagctgaga	ttgcaccact	acactccagc	ctgggtgaca	agagcaaaac	44940
tccatctgaa	aaaaaaaaaa	aaaatcaaga	aataaagaaa	gaaaaaacat	gttttagacct	45000
agttcagccc	agggtttccc	aagcttcttt	gacacacaca	ccttttctca	ggtacacctt	45060
cagggccacc	agtgttctaa	aagcaacttg	ggaaagggtg	aactaaatct	aaaaaggaga	45120
gctgagtgtg	gtggtgcaca	cctatagtag	actgagggga	ggactgcttg	agccaaggag	45180
ttcaaggcag	tagtgagcta	taatcacacc	acggcgcttc	agcctgggca	agagtaagac	45240
actgtaaaaa	ggactccata	aaaaagaaca	atgaaaacaa	agactcctga	gttgatgttg	45300
tgactgaaaa	cccttccact	ggggaaaaat	gtagagatca	tgagttcaat	gcacccatgt	45360
caaaccctct	gggggctctt	gctcaagggg	ccaaattata	tggtttgata	tcatcaatct	45420
ttcagtcctc	caatttcatt	atgttgatgc	aaatcaatgt	caagtcaacg	tcttgtgtat	45480
agaaatacac	acacacacac	acacacacac	acacacacac	acacatatat	atatatactg	45540
gaaaaataca	gcctctgggt	ttttactcag	tggcaacagc	acaaggaata	caaggatctt	45600
agagcaataa	aatggaatac	tctgataata	ttggtccaca	cacaaaaaac	actcagattc	45660
aatgaccact	gaatctatgt	gacagcttga	gaaccttagt	aagggaatca	catgcatttg	45720

tagatgatta ccaaagattc tgcctaact cataatattt ctaagagtgg atactaacat 45780
tattctctttt atgtttttat ttatttttta ttttctagac ggagtctcgc tttgtcaccc 45840
aagctggagt gcagttgcac gatcttggct cactgcaacc tctgcctccc gggttcaagc 45900
aattctccct gcctcagcct cccgagtagc tgggattaca ggggtgcacc accacgcctg 45960
gctaatttgt tgtattttta gtacagaccg ggtttcagta tgttgccag gctggctctc 46020
aactcctgac ctcatgatct gcccgcctcg gcctcccaa gtgctgggat tacaggcgtg 46080
agccccacg cctgaccaca ttatctcttt ttttaaaatg aagaaacaga aaattaagt 46140
atttgctcac aactaaaaa caaattcagg gttgggtgtg gtggctcatg cctgtcaacc 46200
tagcactttg tgaggttgag gcaggtggat gtgttgagac cagttcaccc agaacagcat 46260
agtgaagacc cgtctctac aaaaaacaac tttttttttt aatgacatgg agtcttgctc 46320
tgttgccag actggagtgc agtggcacga ttttggtcct ctgcaagctc tgccctcaa 46380
gttcacgcca ttctcttgcc tcagcctccc aagtagctgg gactacaggt gacccccacc 46440
acgcccggct aatttttttg tatttttagt acagacaggg ttccaccatg ttagccagga 46500
tggtctcgat ctctgacct cgtgatccgc ccacctaggg ctcccaaac attttttttt 46560
aattaaccag acataatgac acgtacctgt ggtcccagct gcttgaaag cggaggttaag 46620
aggattgcct gagctccagc atttgaagg gtagtgagct gtggttgac cactgcactc 46680
cagcctaggc aacagagtga gatattgtct ttaaaaaaaa aaaaaaaat tcatggcaga 46740
gtcagaaata gaaaaaaaca gccaccattt ccagtcagtc ttcagggaac cttcaataa 46800
ccctcacata agcatttttac aagtctattt cttcttattt tataaacata actgcatctt 46860
taattgggta tacttgaata attgaaaact gaacagcaaa tcaattttta tggttcattt 46920
tctccaacaa acaacaatat taaactgtat gagaagtaat atttattgca acaggttatg 46980
aggtggaaac aaataattag tcttacaatt tgctagaagc atgacagagc ttactaacat 47040
tttgaagaaa aacagcaaa gaaagaagtc atcaacaag atggtatctt gacaaaggca 47100
cagcgtcca caactgcttc atactctgtg cacaagaaat cctctcaaga gagaggagag 47160
gagtgatgcc aaatgggctt acattagagc cgtggacact accactggta ttattcatic 47220
aaccaaggct ctacaacacc cctctggaga aaaagtgcac caaaaaatct gtgtaacaaa 47280
ggaaagcaaa agtagcaata agggcccaga ggaatacaaa cagtgcacaa acagtactgc 47340
aaactcagta aaaggagttt ttgattggag tatgaacttt caagttgaag atatatattca 47400
caggaatatt cacccaaagc ttgagagcta gagcaggag agacttgagc tcggtaactg 47460
agtagatgaa atgcataatt ttccactagg tgataattcc ctttgggaag aagtgcctta 47520
tctttaatta ttccactttt tgttaaattg ttcatgcttt taaactgcga ttgtctcaaa 47580
cttgcttgct attgaattgt gtaacatcag ataattggca gttgtcaaaa gataaccca 47640
gtggatattt gaagctgctt ttacgagaag catgggtgctg agctgcctta cacagtcttt 47700
ttacagtaac cataaaaaac tgagtttatt tgatcatgta ttatcccttc tcacataaag 47760
tcataattaga ggaattcttt ttaaaagaag ctttcaaact agtccttttg gcatttaaaa 47820
aatcattata taaaagtaca cttcttcaat acataagaac aaatattttt tctttacca 47880
aaaaacctca tttttaggcc aaaataagtt acaacttgct gaaaaccttt tatggctcag 47940
tgctcattct agatatatga agctatattt ttttgtacat cttcagaaat cagatactga 48000
gagtggctct tctttttttt gagagggagt ttcaactttt cccccaggct agagtgcagt 48060
ggcgcaaaact cagctcacta caacctctgc cccccgggtt caagcgattc tctgcctca 48120
gcctcctagg tagttgggat tacaggcacc caccaccatg cctggctaatt ttttgtattt 48180
ttagtagatg gggtttcgcc atgttgacca ggctggcttc aaacacttga cctcaagcaa 48240
tcggccccgc tcggcctccc aaagtgtggt gattacaggc atgagccacc gtgcccagcc 48300
agagagacaa gagtgggttac ttctaaaatg acaagatgat gtaaccctgg ctcaggaggt 48360

agatcaagtt ctaaattctca ggaataaaaa actgatactc attatccaat tcatatagtc 48420
 ttgtattata tacatattaa cagtctatgc aatgaaaaat aaagaaattt cataaaacta 48480
 ttccaactaagaacataa aaatgtaaag aaacaaaaca tttaattgtac aatctactcc 48540
 atttggcaat gtgtactgag agataaaaaa cctatctaca aacagaatat aacaaaagga 48600
 aaatgtgact taagaagtga tctcaggtcc atagctcttc gggtcttcca aattttagta 48660
 tcagagtgtc agaaagatag gaaaacaaat catgaggaaa aaaccgatgg aacaagcaac 48720
 acagaattca ttttctcaat atgctttgac aggtacttca ctgattccta tcaattttta 48780
 aaattaaatt agacatcatg gcagtgttgg tcttaatttg cttattttgt aaagcagtct 48840
 gttaactacg atggctaagc ataactgtat tctttcttaa ggctgggaa gttattaaca 48900
 ggcaacttgt aaggaaaaga gacattttctc tatgactcag aaacaaaaaa atgaatcaat 48960
 aaatcaaaag aaaaaggagg agagaccatt ctcatagtga caggcattag ggccatttta 49020
 tgtctccagg agcctaccat atctaaatta cagtaactga agcaccctac aacagaccat 49080
 gctgcaattc ttcattcctt caacaaataa ttattgtgca ctgaaaagtg gctacgtacc 49140
 aagcacctaa gtgctggggg gagactgagt ccagacaaac ttgctcccta atggagctaa 49200
 gggctctaata aggagacaat caaataaata taaaattcca cctataaaaa aatgctataa 49260
 atgagaggtg cacagtatcc tcagagtga acataaggat cagacctagt tagagaggtc 49320
 aggaaagggt ttcctgagga gtggtgactg aattgagatc caaaagaaga gggggaatta 49380
 tctcggcaaa gtgagagagg ataaggaggc gggagcagag agatgggaca ctccagggcc 49440
 atgagttgag ctgtgggcat actaaatgtt ttggatttga aatgtcagca acccaagaag 49500
 ggatgtgaag taggaatctg gatatacggg ttaggcctgg aaagggacat ctgtgactca 49560
 ctggcatata agcaataatt ggagtcctaa gtacacatga gttcacccag ggacagaaaa 49620
 ataacaagga gtttcttaag gccagaaca gctttaagag acttcaaaag gtagtaggca 49680
 gggagtggag gatcagcttg caaggaaaac agaggagtga ccagagatgt aaataaaaaga 49740
 ggttgtaccc cagagcttag aacagggtcca gcacacagga agcatacagg ctgcctgata 49800
 acttgccagc ctctgggcag agcacataga tgacacagct gtcaactatg tccacctgag 49860
 catacaaggt ttctgttcat ccaattgtca ttaaagtgga ttcattctacc accacaaagt 49920
 gttgaatctg aacttaattc ctaaagactg cctaaaatgt cttcataaca acttaccata 49980
 tccccagaag gctgtcagtc acatgtcttt gacatataag acagcagaaa ctgccaaaca 50040
 tctttcaaaa ccaggagtgt caaggccaca aggcgaaatc caggtagagc atgggtgtct 50100
 gagagtggag ggagaccaca tggctagagt ttgccatgca gcgtacagac agccacacag 50160
 agggaaacgca ggagatctgc aggggggtgct ccttcagtct gtggctgagt actgaagagt 50220
 ctatacataa gaggaacta cccaaggga ggaaagaacc actggaaaaga acatgtccca 50280
 gagctaccac aaggctgga gagagtcat actctcaca gtcgagtaga gaaacctcgg 50340
 aatacatgaa gcatcagaga gtggaacac tcaaagggtg tgactgcctt agtaggggga 50400
 caaatcagtc ctgggctaca gctgctctgg tctgcctat aacaaagctt aagagacata 50460
 aaaggatcaa attgtttctg attgtttctg agtcacctaa ctgcatccca aaacaaagct 50520
 taaaaacatt taaaggacta gcaaagatcc agtcccaaca aattgtatgc aaagcacca 50580
 ataagggaat ataggtccaa aatgaagagt aaacagaagc agaaaaaatc agtagaagca 50640
 gatgcagaaa tgacacagac aattggacaa ggacctgag atagctataa atatactctg 50700
 tgtgttcaag gtggaagagg gcatgagcat gtaaggga gacatcagaa atatttttaa 50760
 agaccaatc aagcttctag agagagaaaa tacaatgtct gagatgaaaa aatcattgga 50820
 tggcatagat tagacattgc agaagtagag attaatattt ttaattcttc aaagtgacaa 50880
 tagagagatt aattttattt atttatgtat ttattttatt tgagatgaag tctcgtctctg 50940
 ttgctcagca atgggtgtgat ctgagctcac tgcaacctca gcctcccggt ttcaagtgat 51000

tctctggcct cagccttccg agtagctggg attccaggca tgcaccacca tgcccagcta 51060
atgtctgtat ttttagtaga gatgaggttt caccatgttg gccaggctgg tctcgaactc 51120
ctgacctcaa gtgatccacc cgccttggcc tcccaaagtg ttgagattac aggtgtgagc 51180
caccatgccc agccgagatt aattttaaaa tgtaacaata gaaactatcc aaactgaaac 51240
acaaacagga aaaaaaaatc tgaccattag caagctgtga gacaacttcg agcagcctat 51300
tataacctgt aattgaaatc ccagagggag ggtgcagtgg atacaaaaaa tgcttgaaga 51360
aataatggct gagaagaatc tagatttatt gatgaactat aaacctatag atccaagaaa 51420
ctcaatatac accaagcaga aggaatatca agaaaactag accacagtac atcgtaatca 51480
aattacttaa aaccagtgcg aaaagcaaag tttttcaagg cttagaagtt acttaatgat 51540
ttatggggga tggggacaga ggcagataaa attttataaa tatataccta aataticctat 51600
gttgacatta aaagacattc attctaggct gggcatgggt gctcacacct gtaatcctac 51660
cactttggga ggctgagggt ggcagatcac ttgaggtcag gagttcgaga ccggcctggg 51720
caacatggca aaaccccatc tctactaaaa atacaaaaat tagctgggtg tggcagtgcg 51780
tgctgtaat ccagctact tgggaggctg aggcacggaa ttgcttgagc ctgggaggca 51840
gaggttgcag tgagctgaga ttgcaccact gcacatcagc ctgggcaaca gagcgagaat 51900
ccagctcaaa aaaaaaaaaa aaaaagacat tcattctaaa aagcatagaa tggacttcat 51960
tttggggata ttttagaaga ctgcccctaa aaaatacttt taatattggg ttatttttcc 52020
acttacttta acttttctta aaagggcatt cagaaaaacag aatttcccaa cagggttttgt 52080
atataatatg catactatgt attaattatt attattattt tgatatggag tcttgctctg 52140
tcaccaagc tgaaatgcag tggcactatc tcgactcact ccaacccccg tgtctcctgg 52200
gttcaagtgg ttctcctgcc tcagccttcc gagtagctgg gattacaggc acacaccacc 52260
atgcccgact aatgtttgta tttttattag agatgggggt tcaccatgtt ggccaggctg 52320
gtctcgaacc cctgacctca gatgatccac ccacttcagc ctcccaaagt gctgggatta 52380
cagacatgag ccaccacacc tggctggcca ctaggtatta attctgggtt ttcctttttt 52440
cttcataaag gtactttacc tgttgttgtt aatttttttt ttcccgaag gctagtcaag 52500
tgaaacaatg ggtctgatag ggttttttaa taagacacag gctatggaag cagcagtctg 52560
gattcaaate caggcttctc atttactagc taggcaccc ctaaaacttta 52620
tttctcctc tataaaatgg gaataacact ggggtgtggg gctataatcc cagcactttg 52680
ggaggccgag gcaggcaaat tgtctgagct caggagtctg agaccactct gggcaatatg 52740
gtgaaacctc gtctctacta aaatacaaaa aattagctgg gtgtgggtgt gtgcacctgt 52800
agtcccacct actcgggagg ctgaggcatg ggaatcgctt gagtcccag gcggaggctg 52860
cagtgcgccc agattgttcc actgcactaa ggcagcttgg gctacagggt gagactccct 52920
cgcaaaaaat aaataaataa ataaaaataa aaataaataa aatgggaata acacctgcag 52980
tatattttaa ataattaaat gcattatttt attttatttt ggtctcactc tattgccag 53040
gctggagtac agtgggtgcag ccttgcttca ctgcagctc aacctcctcg gctcaagcaa 53100
tcctcccacc tcagcctctt gagtagctgg cactgtacac caccacaacc agataatttt 53160
tatatttttt tatagagaca gggttttgcc atgttgccca ggctggtctt aaactcctag 53220
acttaagcaa tccaccact tcagcctccc aaagtgtctg gattacaggc atgagccaca 53280
gcacttggcc taaatgtgaa ttcaaagggg aaaatatata aaggatccag ctaaagtctt 53340
gatacacagc aagacctcta gttaaaaggc ctctctgctc ttatgtaaca gtggaattct 53400
caccttttaa aagaagttct atcattgtaa ccaatccatg ggatttatat gtgttccata 53460
tatatgctgc cttaattaag ttgacatttc tgtaaatgtt acaggcgtgg ttaaaaaata 53520
aggcaactta cctaaaaaat ataagtgcag tttgaaaaaa cacagctagt cccggataaa 53580
catcagtatc tacatacaca aagtaaaaca gattagacgg ttatataggg aaacggcagt 53640

aataaagtat cagtgccatt cataatgata cattttgtat attacaacat actgctatta 53700
ttcattaact gtaagacatc tataatgaaa ctgaaagaag aaaatgccaa ttttaattccc 53760
ccaaagcaaa ggactgctct tactctggat aaaagtcaat gaacttaca agttttcttt 53820
tagtcaaagt aattgctggt tctagctaca tcaaaactgc tgaggaagca gtaacttgct 53880
cctttgcctc ctatggccaa cactgaaatg caaaatcgta aaaacatata aaataaattc 53940
ttgactttta aacagtctgt taatttattt tctttcatga attcaagagg ttttttgtgt 54000

<210> 12

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 12

catattaagc tttcaactct

20

<210> 13

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 13

agtcgaaatg tttgctttaa

20

<210> 14

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 14

attcgaggat tcgccccctt

20

RTS-0235-29-PATENT

<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 15
ttgatcgcac aattcgagga

20

<210> 16
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 16
cgatccttcc ggaagggccc

20

<210> 17
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 17
ggcctcccag agcgcgagc

20

<210> 18
<211> 20
<212> DNA

RTS-0235

[illegible][illegible]

Abstract

Abstract

Abstract

[illegible]

Abstract. The purpose of this paper is to study the asymptotic behavior of the solutions of the Cauchy problem for the wave equation in the case of a variable speed of propagation. It is shown that the asymptotic behavior of the solutions depends on the properties of the initial data and the properties of the speed of propagation. In particular, it is shown that if the speed of propagation is bounded and the initial data are smooth, then the solutions decay rapidly as time goes to infinity. If the speed of propagation is unbounded and the initial data are smooth, then the solutions decay more slowly as time goes to infinity. Finally, it is shown that if the speed of propagation is bounded and the initial data are not smooth, then the solutions do not decay as time goes to infinity.

[illegible][illegible][illegible][illegible]

Abstract

Abstract

[illegible]

Abstract

Abstract

Abstract

[illegible]

Abstract

[illegible]

Abstract

[illegible][illegible][illegible][illegible]

Abstract. The purpose of this paper is to study the asymptotic behavior of the solutions of the Cauchy problem for the wave equation in the case of a variable speed of propagation. It is shown that the asymptotic behavior of the solutions depends on the properties of the initial data and the properties of the speed of propagation. In particular, it is shown that if the speed of propagation is bounded below by a positive constant, then the solutions decay exponentially as time goes to infinity. If the speed of propagation is unbounded, then the solutions may grow or decay depending on the properties of the initial data.

Abstract

<400> 21

gtagacaaca ggcctcgtgc

20

<210> 22

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 22

actgtcggtg tatttaaact

20

<210> 23

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 23

tgtcgccgt gaaccattta

20

<210> 24

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 24

aattcacccc tatggacatg

20

RTS-0235

<220>

<223> Antisense Oligonucleotide

<400> 28

aaatccattg ggaagcctgc

20

<210> 29

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 29

gaaggcgtag agtgacattg

20

<210> 30

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 30

gctcccagct cagctcgaag

20

<210> 31

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 31

0004337 "04330"
T03210 2224860

gaatggagtg ctcccagctc

20

<210> 32

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 32

tgtcacccag gcagaatgga

20

<210> 33

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 33

tagtgttgaa accaaggcat

20

<210> 34

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 34

ccgacagtca cattccgata

20

<210> 35

<211> 20

RTS-0235

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 35

cacctcaatg ttttctggag

20

<210> 36

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 36

aaggccgtgg aggtatcagc

20

<210> 37

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 37

cctccttttt cccagtaatg

20

<210> 38

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

"03040" 224630

<223> Antisense Oligonucleotide

<400> 38

gggcctttga cctgttgat

20

<210> 39

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 39

agttatccaa tgaaatggag

20

<210> 40

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 40

gtacactctg gagggtttta

20

<210> 41

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 41

ctggacttgt aaacagtaca

20

RTS-0235-37-PATENT

<210> 42

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 42

cttttggtcc aaagcagttg

20

<210> 43

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 43

actctaaaga tggtactttt

20

<210> 44

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 44

cgactctaaa gatgttactt

20

<210> 45

<211> 20

<212> DNA

<213> Artificial Sequence

Patent 224300

<220>

<223> Antisense Oligonucleotide

<400> 45

taaatgccccg actctaaaga

20

<210> 46

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 46

ttgcttaaatt gcccgactct

20

<210> 47

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 47

ttgtttcgta gcaagatatg

20

<210> 48

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

RTS-0235

<400> 48

ctcagtggag gcatctgcca

20

<210> 49

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 49

ttgctgaagc tcagtggagg

20

<210> 50

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 50

gaaaatgttc ccacggagat

20

<210> 51

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 51

cgacagcaac gaaaatgttc

20

<210> 52

RTS-0235-40-PATENT

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 52

caggctcctg ccagcaccga

20

<210> 53

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 53

taatgggatg cttggtggag

20

<210> 54

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 54

taaatactct tctatctgta

20

<210> 55

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

RTS-0235

<223> Antisense Oligonucleotide

<400> 55

tctaagatgg gctgagttgg

20

<210> 56

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 56

cgtcatcctt tggtgagctg

20

<210> 57

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 57

aatggacaca gagtcccaga

20

<210> 58

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 58

cgagataatg gacacagagt

20

RTS-0235

<210> 59
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 59
catgctttgg ttcaaagcgt

20

<210> 60
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 60
agtgggctag gcccatgctt

20

<210> 61
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 61
ctcttccagg gagccagtgg

20

<210> 62
<211> 20
<212> DNA

RTS-0235

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 62

gcttgatctc ttccagggag

20

<210> 63

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 63

actctagcag ctccgatggc

20

<210> 64

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 64

ggcagcaaaa gggaatactg

20

<210> 65

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

RTS-0235

<400> 65

ctctcatgtc tgcagggaca

20

<210> 66

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 66

tgtcaccccc atgagacctg

20

<210> 67

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 67

ttttgaaaat tctttaagaa

20

<210> 68

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 68

caagcaatta catgcctttt

20

T03310" 22222222

<210> 69
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 69
agtatcagag atgtgtcata

20

<210> 70
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 70
ttctgactgc tcagcccaac

20

<210> 71
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 71
tcaagacgac gaccaggtct

20

<210> 72
<211> 20
<212> DNA
<213> Artificial Sequence

RTS-0235

<220>

<223> Antisense Oligonucleotide

<400> 72

ccaaagtcaa gacgacgacc

20

<210> 73

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 73

gccactcagt gtcctctgct

20

<210> 74

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 74

tgtacatgaa gggccactca

20

<210> 75

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 75

RTS-0235-47-PATENT

catggatgta catgaagggc

20

<210> 76

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 76

ttttaagcca gcacaccatg

20

<210> 77

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 77

gattaattac attttaagcc

20

<210> 78

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 78

atatttaca gattaattac

20

<210> 79

<211> 20

009210" 2221800

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 79

tcactgggcc ctttctaact

20

<210> 80

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 80

cctccttcac tgggcccttt

20

<210> 81

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 81

tagaaatgct ggaagtttct

20

<210> 82

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

RTS-0235

20

<213> Artificial Sequence

20

<213> Artificial Sequence

20

<213> Artificial Sequence

20

[illegible]

<210> 86
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 86
gaggaacaaa ttaggaact

20

<210> 87
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 87
cctgggcgac agtgcaagac

20

<210> 88
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 88
gctctgtcac ccaggctgat

20

<210> 89
<211> 20
<212> DNA
<213> Artificial Sequence

RTS-0235

<220>

<223> Antisense Oligonucleotide

<400> 89

tctcttgcac cagcctctca

20

RTS-0235